

Appl. No. 09/706,937

Amdt. dated October 31, 2003

Request for continued examination following final Office action of June 4, 2003

### REMARKS

This amendment accompanies the filing of a REQUEST FOR CONTINUED EXAMINATION following a Final Office Action mailed June 4, 2003. In the Final Office Action, Claims 1-3, 5, 9 and 12-14 were rejected as anticipated and Claims 4, 6-8 and 10-11 were rejected as obvious. Applicants do not agree that any of these claims are anticipated or obvious. However, in the interest of expediting prosecution and allowance of the present application, Applicants have amended Claims 1, 2 and 14. This amendment is submitted to further define and clarify the inventive subject matter of this application. Applicants submit that all of the pending claims in the present application are allowable, as explained below.

#### Patentability of Applicants' Claims

##### Independent Claim 1

Applicants' independent Claim 1 relates to an index for data that represent geographic features. The index has a structure that includes three dimensions. A first dimension includes latitude boundary information, and a second dimension includes longitude boundary information. A third dimension includes non-spatial property information. The first and second dimensions of the index are spatially searchable. The third dimension of the index is searchable for a non-spatial property of the geographic features represented by the data.

Applicants' independent Claim 1 was rejected as being anticipated by US Pat. No 6,470,344 ("Kothuri"). Applicants submit that Kothuri does not anticipate Claim 1 because Kothuri does not disclose all of the elements of this claim. Specifically, Kothuri does not disclose the recited third dimension of the index. Kothuri only discloses an index for geographic data having two dimensions of latitude and longitude. (See, Kothuri: column 9, lines 1-9). Furthermore, Kothuri does not disclose that the third dimension is searchable for a non-spatial property of the geographic features represent by the data.

The Final Office Action contends that Kothuri teaches the non-spatial property at column 15, lines 38-39 as "another index may be constructed using year and state granularities" which are the non-spatial property. (See, Final Office Action: page 8). However, these non-spatial properties are included in a separate index, not as a third

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dimension in the structure of the index that includes the first and second dimension with longitude and latitude boundary information.

Additionally, the Final Office Action contends that Kothuri teaches non-spatial property could be searchable using the additional dimension. (*See, Final Office Action*: page 8). Although the attributes (state, city, product, year) of the data in the separate index may be searched, Kothuri does not disclose the third dimension and thus does not disclose searching the third dimension for the non-spatial property of the geographic features represented by the data.

Furthermore, the Final Office Action contends that Kothuri discloses searching the non-spatial property using the additional dimension. Specifically, the Final Office Action contends that the property of "discrete" or "continuous" of the "latitude dimension" is searchable by using queries with discrete values or ranges of values. (*See, Final Office Action*: page 8). However, the property of "discrete" or "continuous" is a property of the established index attribute, such as range of values for query of the "latitude dimension," and is not a property of the geographic features represented by the data. (*See, Kothuri*: column 15, lines 1-26). Thus, Kothuri does not disclose that the third dimension is searchable for a non-spatial property of the geographic features represented by the data.

Because Kothuri fails to disclose or suggest every claim element, Kothuri does not anticipate Applicants' independent Claim 1.

#### Independent Claim 2

Applicants' independent Claim 2 was rejected as being anticipated by Kothuri. Applicants submit that Kothuri does not anticipate amended Claim 2 because Kothuri does not disclose all of the elements of this claim. Specifically, as discussed above in conjunction with Claim 1, Kothuri does not disclose the recited third dimension of the index. Furthermore, as discussed above in conjunction with Claim 1, Kothuri does not disclose that a non-spatial property of the data that represent the geographic features is searchable using the third dimension.

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#### Independent Claim 14

Applicants' independent Claim 14 relates to an index for data that has a structure with three dimensions. The first and second dimensions are searchable using those dimensions. A third dimension is searchable for a granularity of the indexed data.

Applicants' independent Claim 14 was rejected as being anticipated by Kothuri. Applicants submit that Kothuri does not anticipate Claim 14 because Kothuri does not disclose all of the elements of this claim. Specifically, Kothuri does not disclose the recited third dimension of the index that is searchable for a granularity of the indexed data. (*See*, Kothuri: column 15, lines 1-26).

The Final Office Action contends that Kothuri teaches the non-spatial property at column 15, lines 38-39 as "another index may be constructed using year and state granularities." (*See*, Final Office Action: page 9). However, the different granularities are provided in separate indexes, not as a third dimension in the structure of the index. (*See*, Kothuri: column 15, lines 35-39). In Kothuri, granularity must be searched in separate indexes; therefore, Kothuri does not disclose granularity being searchable in the third dimension of the index.

Additionally, the Final Office Action contends that Kothuri discloses that an index may also store information derived from data items in addition to storing information concerning the data dimension. (*See*, Final Office Action: page 9). For example, the "nodes of an R-tree index for sales data may store sales or profit data." (*See*, Kothuri: column 15, lines 54-55). Although the index disclosed in Kothuri may store actual sales or profit data, Kothuri does not disclose the third dimension of the index that is searchable for a granularity of the indexed data. Furthermore, although Kothuri discloses establishing searchable attributes that may be specified as part of a search (*See*, Kothuri: column 15, lines 56-58), Kothuri does not disclose the third dimension of the index that is searchable for a granularity of the indexed data. Rather, Kothuri discloses constructing a separate index for different granularities, such as a different index with city level and a different index with state level that requires searching separate indexes for granularity.

Because Kothuri fails to disclose or suggest every claim element, Kothuri does not anticipate Applicants' independent Claim 14.

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Dependent Claims 3-5, 8-9 and 11-13

Applicants' Claims 3-5, 8-9 and 11-13 are dependent claims that distinguish the cited references at least for the same reasons explained above in connection with their independent base Claims 1 and 2. In addition, these claims recite further features and limitations that are neither disclosed nor suggested by these references.

Petition for extension of time

Included with this response is a request for an extension of time to reply to the Final Office Action dated June 4, 2003. Included with this response is an authorization for payment of the fee associated with this request.

Conclusion

All the issues in the Final Office Action, dated June 4, 2003 have been addressed. Favorable consideration of the present application is requested. If any issues remain, the Examiner is invited to call the undersigned.

Respectfully submitted,



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